

terminations completely out of gear, so to speak. The lack of any sort of descriptive matter makes it difficult for the amateur to know whether he has "come out right" or not.

For use in a college class or among those who have had considerable training, the work will be a useful field book and it was written partly with this aim in view. There is no book of exactly this character, no one work that attempts to cover the different seasonal aspects of our local wild and cultivated flora. The author states that a subsequent work may be forthcoming which will give descriptions of the plants keyed out in the present volume. Such a companion volume would be a very welcome addition to the present one and together they would be more usable than the keys can possibly be by themselves. A system of cross referencing from the present to the projected book would immensely increase the usefulness of both.

There is a very complete glossary of terms used in the keys which will be found most useful by students. Unlike most glossaries, the definitions are usually self-explanatory even to the uninitiated. With the aid of this and the instructions at the beginning of the book, a patient and careful student can find all of our common plants arranged according to the season at which they flower. In view of the restricted character of this excellent little book its name would have carried greater significance had it been "Keys to the Wild and Cultivated Flowering Plants."

N. T.

PROCEEDINGS OF THE CLUB

OCTOBER 30, 1912

The meeting of October 30, 1912, was held in the laboratory of the New York Botanical Garden at 3:30 P.M. Vice-President Barnhart presided. Twenty-five persons were present.

After the approval of the minutes of October 8, the following persons were elected to membership: Dr. A. M. Johnson, 1206 S. Butte Street, Spokane, Washington; Dr. E. W. Olive, Brooklyn Botanic Garden, Brooklyn, New York; Dr. J. A. Harris, Cold Spring Harbor, New York; Mr. O. Kunkel, Columbia University, New York City; and Dr. H. O. Severance, Columbia, Missouri.

The announced scientific programme consisted of a "Symposium of the Flora of Bermuda," introduced by Dr. N. L. Britton. Others taking part in the symposium were Dr. M. A. Howe, Miss Margaret Slosson, Dr. B. O. Dodge, Dr. W. A. Merrill, Mrs. N. L. Britton, Mr. Stewardson Brown, and Professor Charles L. Bristol.

Dr. N. L. Britton presented a paper on our present knowledge of the Bermuda flora, which will be published in the *Journal* of the New York Botanical Garden.

The following abstracts of the other papers presented were prepared by the speakers:

Dr. Marshall A. Howe spoke briefly of some of the more striking features of the rich and varied marine flora of Bermuda. He remarked that there were probably as many species of plants inhabiting the sea in that region as were found on the dry land. The marine algae of Bermuda are closely related to those of southern Florida and the West Indies, though several species have been described that appear to be endemic to Bermuda. Specimens were exhibited, illustrating particularly the order Siphonales, such as the genera *Caulerpa*, *Halimeda*, *Udotea*, and *Penicillus*, all of which are well represented in Bermuda.

Miss Slosson stated that the fern flora of Bermuda, as represented in the herbarium of the New York Botanical Garden, consists of 19 species included in 13 genera. One of the genera belongs to the family Osmundaceae and the remaining to the family Polypodiaceae. Two families of fern-allies, Salviniaceae and Psilotaceae, are also represented, each by a single species. The list of species and genera is as follows:

GENERA	SPECIES
<i>Osmunda</i>	<i>O. regalis</i> , <i>O. cinnamomea</i> .
<i>Acrostichum</i>	<i>A. excelsum</i> .
<i>Polypodium</i>	<i>P. Plumula</i> .
<i>Pteris</i>	<i>P. longifolia</i> .
<i>Pteridium</i>	<i>P. caudatum</i> .
<i>Anopteris</i>	<i>A. hexagona</i> .
<i>Adiantum</i>	<i>A. bellum</i> .
<i>Anchistea</i>	<i>A. virginica</i> .
<i>Asplenium</i>	<i>A. dentatum</i> , <i>A. muticum</i> , <i>A. monteverdense</i> .
<i>Diplazium</i>	<i>D. Laffanianum</i> .
<i>Polystichum</i>	<i>P. adiantiforme</i> .

- Dryopteris* *D. patens*, *D. thelypteris*, *D. Speluncae*, *D. bermudiana*.
Nephrolepis *N. exaltata*.
Salvinia A species not yet determined but not endemic. It is
 matched in the herbarium here by specimens from Central America.
Psilotum *P. nudum*.

Of the above species, four, *Osmunda regalis*, *Osmunda cinnamomea*, *Anchistea virginica* and *Dryopteris thelypteris* occur also in the northeastern United States. Four others, *Dryopteris bermudiana*, *Dryopteris Speluncae*, *Diplazium Laffanianum*, and *Adiantum bellum*, have been considered endemic. *Adiantum bellum*, however, is now reported by Christensen* from Guiana also. Six additional species, not included in the above list, have been reported from Bermuda, but are not represented by specimens in the garden herbarium. Possibly some of these were introduced and have since disappeared. One of them, *Adiantum capillus-veneris*, is known to have been introduced along with other plants by Governor Lefroy, and that some of these foreign residents still linger would appear from the recent collection there, by Mr. Harold G. Rugg, of a single sterile frond of what is probably an East Indian species of *Phymatodes*.

Dr. W. A. Murrill reported that the fungi thus far collected in the Bermudas have been mostly parasitic forms on living leaves and stems such as rusts and smuts and various leaf-spots, or saprophytic forms on dead wood, such as *Xylaria* and *Hypoxylon*. Very few gill-fungi or polypores are known from the islands. Our collections contain *Fomes Sagraeanus* (Mont.) Murrill, known also from southern Florida, Cuba and Colombia; and an undescribed species of *Grifola* just brought back by Dr. Britton which is endemic so far as known and has the peculiarity of growing in grass tufts while most of the species of the genus grow on the roots of living oak trees.

Dr. B. O. Dodge spoke of the fungi collected by Mrs. Dodge and himself during a week in August in 1911. About 50 species were found. Among these were 8 species of slime moulds, 14 species of coprophilous fungi, a few species of Discomycetes and other fleshy fungi. *Ascophanus sarcobius* and *Xylaria arbuscula* were among the rarer species collected.

* Index, 23, 1905.

Mrs. Britton exhibited a collection of mosses from Bermuda, and stated that they included to date 20 genera and 25 species. There had been previously recorded by the Challenger Expedition 5 genera and 8 species one of which, *Trichostomum bermudianum* Mitt., is reported as being endemic and widely distributed on rocks. This last trip has added a new species of *Thuidium* and Mr. Williams reports, in his revision of *Campylopus* for North American Flora another endemic species. This is a large showy plant, thus far only found sterile.

There are a number of common species, such as *Funaria hygrometrica*, *Weisia viridula*, *Tortula agraria*, *Leucobryum glaucum*, *Sphagnum magellanicum* and *Sphagnum trinitense*.

Of the rarer mosses, most of them also occur in Florida, including *Gyroweisia Barbula*, *Syrrophodon floridanus*, *Fissidens Garberi*, *Cyclodictyon varians*, *Isopterygium micans*, *Anomodon rostratus* and *Amblystegium varium*.

Perhaps the rarest moss is *Rhacopilum tomentosum*.

Of the hepatics, those listed by Dr. Evans in the Bull. Torrey Club 33: 129-135, 1906, include 20 genera and 22 species, of which only 1 is endemic (*Crossotolejeunea bermudiana*).

Mr. Brown and Professor Bristol contributed further interesting information regarding the flora of these islands.

Meeting adjourned.

B. O. DODGE,
Secretary

NEWS ITEMS

We regret to record the death on December 14, 1912, of Miss Jane R. Torrey, the oldest daughter of the late Dr. John Torrey, at Glenridge, N. J.

Jonathan Duell Hyatt, a former member of the Club, who was proposed for membership in November, 1873, died at his home in the Bronx on December 18, aged 87 years. He was elected a member of the Royal Microscopical Society of London in 1879. For many years he was a member of the American Association for the Advancement of Science and the New York Mineralogical Club. He had been for years President of the Microscopical Club of New York.